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EXAMINER

JEAN GILLES, JUDE

ART UNIT PAPER NUMBER

2143

DATE MAILED: 08/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/042,412

Applicant(s)

ARENDT ET AL.

Examiner

Jude J. Jean-Gilles

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-20, 23-25 and 27-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-20, 23-25, and 27-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) . Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>01/07/2002</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is responsive to communication filed on 01/07/2002. Claimed priority is granted from Divisional Application 09114051, Filing Date 07/10/1998. claims 1-13, 21, 22, 26 have been deleted as part of a Preliminary amendment. Claims 27-31 are newly added. Claims 14-20, 23-25, and 27-31 are pending in this application and represent a "**HIGHLY SCALABLE AND HIGHLY AVAILABLE CLUSTER SYSTEM MANAGEMENT SCHEME**".

Information Disclosure Statement

1. The references listed on the Information Disclosure Statement submitted on 01/07/2002 have been considered by the examiner (see attached PTO-1449A).

Claim Objections

2. Claim 25 is objected to because of the following informalities: Claim 25 improperly depends on claim 22 which has been deleted. In order to proceed with the examination of the claim, the Examiner assumes claim 25 depends on claim 23. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1, 4, 6-7-10, 12, 14-16, 23, and 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolff (Wolff), U.S. Patent No: 6,101,508 in view of Short et al (Short), Patent No. 6,178,529.

Regarding **claim 14**, Wolff teaches the invention substantially as claimed. Wolff discloses a method of partially replicating configuration information in a distributed database, comprising:

defining a subset of data processing systems within a cluster system as a resource group, (column 41, lines 35-52);

defining configuration data for the resource group [see Wolff; column 35, lines 65-67; column 36, lines 1-19]; and

replicating the configuration data only on each data processing system within the resource group [see Wolff; column 10, lines 47-59]. However, Wolff fails to disclose a system, wherein a data processing system may be a member of more than one resource group.

In the same field of endeavor, Short discloses "*...to determine what groups were running on the failed system, the systems maintain group information on each node of the cluster in a database to track which systems own which groups. To determine which system should take ownership of which groups, those systems capable of hosting the groups negotiate among themselves for ownership, based on system capabilities, current load, application feedback and/or the group's system preference list. Once negotiation of a group is complete, all members of the cluster update their databases to properly reflect which systems own which groups...*" [see Short; column 7, lines 35-45].

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Short's teachings of using a data processing system may be a member of more than one resource group with the teachings of Wolff, for the purpose of improving the ability of a network "*...to provide a method and a system for monitoring and controlling a network object.*" as stated by Short in lines 1-3 of column 2. By this rationale, **claim 14** is rejected.

Regarding **claim 15**, the combination Wolff-Short teaches the method of claim 14, wherein the step of defining a subset of data processing systems within a cluster as a resource group further comprises: defining a highly available application and each data processing system designated to manage the application as a resource group [see Wolff; column 4, lines 39-61].

Regarding **claim 16**, the combination Wolff-Short teaches the method of claim 15, wherein the step of defining a highly available application and each data processing

system managing the application as a resource group further comprises: defining a plurality of resource groups for each highly available application within the cluster, each resource group including all data processing systems managing the corresponding application [see Wolff; column 41, lines 35-52].

Regarding **claim 17**, the combination Wolff-Short teaches the method of claim 14, wherein the step of defining configuration data for the resource group further comprises: instantiating a configuration object containing configuration and status information for a highly available application corresponding to the resource group and having an associated list of data processing systems within the resource group (see Short; column 9, lines 35-67).

Regarding **claim 18**, the combination Wolff-Short teaches the method of claim 17, wherein the step of replicating the configuration data only on each data processing system within the resource group further comprises: replicating the configuration object on each data processing system identified in an owners list associated with the configuration object (see Wolff; 28, lines 39-67).

Regarding **claim 19**, the combination Wolff-Short teaches the method of claim 17, wherein the step of replicating the configuration data only on each data processing system within the resource group further comprises: replicating, on a data processing system, a configuration object for each resource group including the data processing system (see Wolff; 28, lines 39-67).

Regarding **claim 20**, the combination Wolff-Short teaches the method of claim 14, further comprising: maintaining, on a data processing system, a configuration object

for each resource group including the data processing system and no configuration objects for other resource groups(see Wolff; 28, lines 39-67; see Short; column 7, lines 35-45).

Regarding **claim 23**, the combination Wolff-Short teaches a computer program product in a computer usable medium, comprising:

instructions defining a subset of data processing systems within a network as a resource group [see Gorczyca; fig. 1A, item 40; column 3, lines 57-67; column 4, lines 1-27]; wherein a data processing system may be a member of more than one resource group(see Short; column 7, lines 35-45);

instructions defining configuration data for the resource group (see Short; column 10, lines 10-44); and

instructions for replicating the configuration data only on each data processing system within the resource group [see Wolff; column 28, lines 39-67].

Regarding **claim 24**, the combination Wolff-Short teaches the computer program product of claim 23, wherein the instructions defining a highly available application and each data processing system managing the application as a resource group further comprise: instructions defining a plurality of resource groups for each highly available application within the network, each resource group including all data processing systems managing the corresponding application (see Short; column 10, lines 10-44);.

Regarding **claim 25**, the combination Wolff-Short teaches the computer program product of claim 23, wherein the instructions defining a highly available application and each data processing system managing the application as a resource group further comprise: instructions defining a plurality of resource groups for each highly available application within the network, each resource group including all data processing systems managing the corresponding application(see Short; column 10, lines 10-44);

Regarding **claim 27**, the combination Wolff-Short teaches a cluster multiprocessing system, comprising:

a plurality of data processing systems segregated into a plurality of resource groups wherein each of the plurality of data processing systems may be a member of more than one resource group[see Wolff; fig. 6; column 24, lines 48-67; column 25; lines 1-27);

a plurality of configuration objects each corresponding to a resource group within the plurality of resource groups[see Wolff; fig. 6; column 24, lines 48-67; column 25; lines 1-27); and

wherein each of the plurality of configuration objects is replicated only on each data processing system within the resource group associated with the configuration object (see Wolff; 28, lines 39-67).

Regarding **claim 28**, the combination Wolff-Short teaches the cluster multiprocessor system of Claim 27, wherein a highly available application and each data processing system designated to manage the application is defined as a resource group

[see Wolff; fig. 6; column 24, lines 48-67; column 25; lines 1-27).

Regarding **claim 29**, the combination Wolff-Short teaches the cluster multiprocessor system of Claim 28, wherein a plurality of resource groups is destined for each highly available application within the cluster, each resource group including all data processing systems managing the corresponding application [see Wolff; fig. 6; column 24, lines 48-67; column 25; lines 1-27).

Regarding **claim 30**, the combination Wolff-Short teaches the cluster multiprocessor system of Claim 27, wherein each of the plurality of configuration objects contains configuration and status information for a highly available application corresponding to an associated resource group and an associated owners list of data processing systems within the associated resource group [see Wolff; fig. 6; column 24, lines 48-67; column 25; lines 1-27).

Regarding **claim 31**, the combination Wolff-Short teaches the cluster multiprocessor system of Claim 30, wherein each of the plurality of configuration objects are replicated on each data processing system identified in an owners list associated with the configuration object [see Wolff; fig. 6; column 24, lines 48-67; column 25; lines 1-27).

Conclusion

5. **THIS ACTION IS MADE NON-FINAL.** Any inquiry concerning this communication or earlier communications from examiner should be directed to Jude Jean-Gilles whose telephone number is (571) 272-3914. The examiner can normally be reached on Monday-Thursday and every other Friday from 8:00 AM to 5:30 PM.

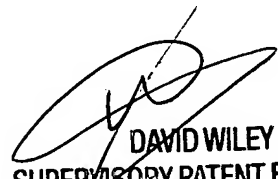
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley, can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3719.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Jude Jean-Gilles
Patent Examiner
Art Unit 2143

 JJG

August 09, 2006


DAVID WILEY
SUPERVISORY PATENT EXAMINER
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